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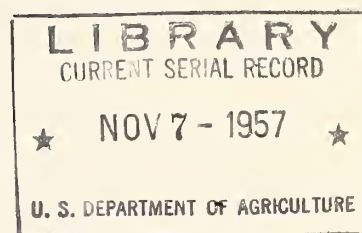
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COMMERCIAL FERTILIZERS AND PRIMARY PLANT NUTRIENTS

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CONSUMPTION



IN THE UNITED STATES

YEAR ENDED JUNE 30, 1956

by

WALTER SCHOLL

HILDA M WALLACE

ESTHER I FOX

FLORENCE B CRAMMATTE

FERTILIZER AND AGRICULTURAL LIME SECTION
SOIL AND WATER CONSERVATION RESEARCH DIVISION
AGRICULTURAL RESEARCH SERVICE
U. S. DEPARTMENT OF AGRICULTURE
BELTSVILLE, MARYLAND

The consumption of fertilizers in the United States and Territories (Hawaii and Puerto Rico) in the year ended June 30, 1956, amounted to 22,193,070 tons. This was a decrease of 533,392 tons from the quantity (22,726,462 tons) used in the preceding year. The 1955-56 consumption of fertilizers comprised 21,403,465 tons of products containing one or more of the primary plant nutrients (N, P_2O_5 , K_2O), and 789,605 tons of the secondary and trace nutrient materials which did not contain these nutrients. The quantity of products containing primary nutrients was 531,391 tons (2.42 percent) below that (21,934,856 tons) in 1954-55. The consumption of materials that did not contain primary nutrients was 2,001 tons (0.25 percent) below the quantity (791,606 tons) used in the preceding year.

Fertilizers used in 1955-56 contained 6,054,741 tons of nitrogen, available P_2O_5 , and K_2O , or 64,398 tons (1.05 percent) less than in 1954-55. This was the first time in 17 consecutive years that the total consumption of primary nutrients failed to increase. The use of nitrogen decreased 27,933 tons (1.42 percent) to 1,932,603 tons, that of available P_2O_5 36,240 tons (1.59 percent) to 2,247,420 tons, and that of K_2O 225 tons (0.01 percent) to 1,874,718 tons. The amount of total P_2O_5 increased 46,699 tons (1.80 percent) to 2,643,418 tons, owing principally to the increase in the direct use of phosphate rock which is estimated to have contained an average of 32 percent of total P_2O_5 but only 3 percent of available P_2O_5 .

In 1955-56 the average primary nutrient content of fertilizers bearing primary nutrients was 28.29 percent as compared with 27.90 percent in 1954-55.

The data presented herein were compiled from manufacturers' reports of shipments to agents, dealers, distributors, and consumers in the Territories (except Alaska), the District of Columbia, and the States (except California, Florida, Massachusetts, Missouri, North Carolina, South Carolina, and Texas). For the latter seven States the data were compiled chiefly from the reports of the respective fertilizer control officials. No data were available for Alaska. Supplementary information was furnished by the control offices and other State agencies, as well as by fertilizer brokers, and special inquiries were made of all known distributors and custom applicators of anhydrous ammonia and nitrogen solutions.

The quantities are reported as 2,000-pound tons. Although the data refer to shipments, the terms "consumption," "sales," and "shipments" are used synonymously. The actual consumption differs slightly, no doubt, from either the shipments or sales.

ALL FERTILIZERS

The consumption of the two classes of fertilizers (mixtures and materials) is summarized by States and Regions in table 1. In only two regions—the West South Central and Pacific—were slight gains made, while in the other regions consumption was lower by amounts ranging up to nearly 11 percent as compared with the preceding year (table 1a). In 1955-56 approximately 64 percent of the decrease in fertilizer tonnage occurred in the three Atlantic coast regions. Among the other areas the West North Central region accounted for the highest proportion (22.5 percent) of the decrease.

Table 1a. - Regional change in consumption of fertilizers in year ended June 30, 1956, from that in the preceding year.

Region	Tons			Percent		
	Mixtures	Materials 1/	Total	Mixtures	Materials 1/	Total
New England	- 17,491	- 5,890	- 23,381	- 4.79	- 7.90	- 5.32
Middle Atlantic	-158,999	- 18,517	-177,516	- 8.37	- 8.35	- 8.37
South Atlantic	- 88,742	- 49,700	-138,442	- 1.80	- 4.27	- 2.27
East North Central	-141,796	+139,414	- 2,382	- 4.03	+14.00	- .05
West North Central	-102,598	- 17,376	-119,974	- 7.99	- 1.93	- 5.49
East South Central	- 32,145	- 3,454	- 35,599	- 1.60	- .37	- 1.21
West South Central	- 5,093	+ 7,052	+ 1,959	- .72	+ 1.07	+ .14
Mountain	- 3,423	- 42,330	- 45,753	- 6.67	-11.31	-10.75
Pacific	+ 11,259	+ 37,249	+ 48,508	+ 3.78	+ 1.95	+ 2.20
Continental U. S.	-539,028	+ 46,448	-492,580	- 3.58	+ .64	- 2.21
Territories	- 33,169	- 7,643	- 40,812	-11.86	- 4.77	- 9.28
Total	-572,197	+ 38,805	-533,392	- 3.73	+ .52	- 2.35

1/ Including secondary and trace nutrient materials.

In Hawaii and in each of 16 States scattered through every region the consumption of all fertilizers was higher in 1955-56 than in the preceding year. These units, which in 1955-56 accounted for 35.52 percent of the United States consumption of fertilizer, showed a total gain of 587,222 tons (7.45 percent) over their consumption in 1954-55.

Compared with the tonnages in each six-month period of 1954-55, most of the decrease in total consumption of fertilizers occurred in the January-June period of 1955-56. Consumption in this period was 461,424 tons (2.78 percent) lower, while in the July-December period consumption was 71,968 tons (1.17 percent) lower.

In table 1, the percentage change in consumption of fertilizers in 1955-56 from the level in 1954-55 is based on the tonnage of primary nutrient containing fertilizers only, in order that a direct comparison may be made with the percentage change in the quantities of the primary nutrients themselves.

MIXTURES

In 1955-56 the total consumption of commercial mixed fertilizers amounted to 14,775,653 tons, or 66.58 percent of the quantity of fertilizers. There were 1,536 grades reported. In addition, approximately 500 mixtures, not reported by grades, were used in California and the quantities of an unknown number reported by manufacturers in other States.

The total consumption of mixed fertilizers in 1955-56 was 572,197 tons (3.73 percent) less than in the preceding year (table 1a), and the quantity decreased in each of the regions except the Pacific which showed an increase of 3.78 percent.

In the Continental United States, there were 171 grades consumed in individual amounts of 3,000 tons or more (table 2). These totaled 13,973,318 tons and accounted for 96.17 percent of the quantity of mixtures used on the Continent. Other grades consumed in this area numbered 1,231 and amounted to 358,045 tons (2.46 percent). The balance (197,795 tons, 1.37 percent) represented mixtures not reported by grades.

Consumption of mixtures in Hawaii and Puerto Rico amounted to 246,494 tons in 168 grades. While many of the grades in Puerto Rico are similar to those used on the Continent, most of those in Hawaii are designated in fractional numbers.

In 1955-56, four ratios of the primary nutrients (N:available P_2O_5 : K_2O) accounted for 50.63 percent of the total consumption of mixed fertilizers in the Continental United States (table 2a). Individually, the proportions were 17.42, 13.88, 10.86, and 8.47 percent for the 1:4:4, 1:2:2, 1:1:1, and 1:3:3 ratios, respectively.

The 15 grades consumed in largest tonnages in 1955-56 in each of the Continental regions and Puerto Rico are shown in table 3, together with the quantities for each State in the region. Excepting California, Colorado, Washington, Wyoming, and the District of Columbia, these grades accounted for 50 percent or more of the total consumption of mixtures in each of the States and Puerto Rico. At least 12 of the grades were among the 15 consumed in largest tonnages in each of the areas in the preceding year, but not always in the same order of tonnage.

Table 2a. - Ratios of primary nutrients of mixed fertilizers consumed in largest tonnage in the Continental U. S., year ended June 30, 1956.

Nutrient ratio ^{1/}	Consumption	Proportion of quantity of all mixed fertilizers
	<u>tons</u>	<u>percent</u>
1:4:4	2,531,259	17.42
1:2:2	2,017,105	13.88
1:1:1	1,578,374	10.86
1:3:3	1,230,328	8.47
Total	7,357,066	50.63

^{1/} N:available P₂O₅:K₂O.

Though 171 grades consumed in the Continental U. S. represented 96.17 percent of the total tonnage of mixed fertilizers used in this area, 15 of these (table 3) accounted for 62.56 percent of the tonnage. These 15 were the same as those in 1954-55 except that the 6-12-12 grade replaced the 4-8-8 grade. The weighted average guaranteed nutrient content of the 15 grades was 4.80 percent nitrogen, 12.12 percent available P₂O₅, and 11.30 percent K₂O (total, 28.22 percent) as compared, respectively, with 4.51, 11.80, and 10.86 percent (total, 27.17 percent) in the preceding year. The proportionate increase in the concentration of nitrogen and potash were higher than in that of P₂O₅.

In 1955-56 the 5-10-10 grade was consumed in largest tonnage, while in each of the preceding 6 years the 3-12-12 grade showed the largest consumption.

The consumption of mixtures by classes (N-P-K, N-P, P-K, N-K) for each region and the United States is shown in table 5. Except for the Mountain region, N-P-K mixtures were used in much larger quantities than the other classes. More than 80 percent of the tonnage of all mixtures consumed in each of the other regions was of this class, while in the Mountain region the tonnages of N-P-K and N-P mixtures were nearly equal. In 1955-56 for the United States and Territories, 90.80 percent of the tonnage of all mixtures was of the N-P-K class, while for the other classes—N-P, P-K, N-K—consumption was 1.96 percent, 5.73 percent, and 1.51 percent of the total tonnage, respectively. The proportions were only slightly different in 1954-55.

The average primary nutrient content of all mixtures consumed in each State and Territory is shown in table 7. Compared with 1954-55 the averages for the 51 political units in 1955-56 showed for nitrogen, increases in 38 and decreases in 13; for available P_2O_5 , increases or no change in 42 and decreases in 9; for K_2O , increases in 41 and decreases in 10; and for all these nutrients, increases in 44 and decreases in 7. The West South Central region was the only area which, in each of the political units the average content of each of the nutrients showed an increase.

The national weighted average of the primary nutrients contained in mixed fertilizers in 1955-56 was for nitrogen, 5.39 percent; for available P_2O_5 , 12.08 percent; for K_2O , 11.20 percent; and for the total of these nutrients 28.67 percent. The corresponding values in the preceding year were 5.24, 11.86, 10.80, and 27.90 percent. The proportionate increase was highest for K_2O and lowest for P_2O_5 .

MATERIALS

In 1955-56 the consumption of fertilizer materials for direct application amounted to 7,417,417 tons as compared with 7,378,612 tons in 1954-55 (table 1). Fertilizer materials in 1955-56 comprised chemical nitrogen materials, 3,271,952 tons; natural organic materials, 472,706 tons; phosphate materials (including ammonium phosphates, ammonium phosphate-sulfate, and ammonium phosphate-nitrate), 2,478,315 tons; potash materials (including potassium nitrate, potassium-sodium nitrate, and lime-potash), 404,839 tons; and secondary and trace nutrient materials, 789,605 tons. Compared with the previous year, there was an increase of 11,606 tons in natural organic materials, 253,660 tons in phosphate materials, and 3,755 tons in potash materials. Chemical nitrogen materials and secondary and trace nutrient materials decreased 228,215 tons and 2,001 tons, respectively. The consumption of the principal materials comprising these classes is shown by States and regions in tables 4 and 5.

Compared with the previous year, the principal changes in consumption of the chemical nitrogen materials in 1955-56 were increases in the tonnages of urea (35 percent), aqua ammonia (34 percent), and anhydrous ammonia (18 percent). The largest increases in the tonnages of urea were in the East North Central, West South Central, Mountain, and Pacific regions, which together accounted for 73 percent of the consumption of this material in 1955-56. Most of the increase in consumption of aqua ammonia was in the Pacific region where 77 percent of the total tonnage was used. Increases in the consumption of anhydrous ammonia were mostly in the South Central and Pacific regions—53,123 tons, 27.5 percent.

Decreases in the consumption of chemical nitrogen materials comprised chiefly sodium nitrate (73,038 tons, 12 percent), ammonium nitrate-limestone mixtures (44,095 tons, 12 percent), ammonium nitrate (174,692 tons, 16 percent), and ammonium sulfate (105,570 tons, 20 percent).

Phosphate rock was the only phosphate material that showed a large increase in consumption (330,812 tons, 57 percent), nearly all of which was in Illinois and Missouri the States using more than 85 percent of the total tonnage of this material in 1955-56. The other increases in phosphate materials were chiefly in basic slag (20,882 tons) and the total for all kinds of ammonium phosphate products (23,011 tons). Decreases in the consumption of superphosphates containing 22 percent or less of available P_2O_5 occurred in all the regions and totaled 78,696 tons (11 percent). The decrease of 16,217 tons (5 percent) in the consumption of superphosphates containing more than 22 percent P_2O_5 was spread over 5 of the 10 regions. No consumption of fused tricalcium phosphate was reported for 1955-56; manufacture of this material by the Tennessee Valley Authority the only producer, ceased in the year ended June 30, 1954.

The consumption of potash materials for direct application increased only 0.9 percent (from 401,084 tons to 404,839 tons). Among the individual materials, the use of the 58-62 percent grades of potassium chloride, which comprised 76 percent of the total consumption of potash materials, showed the largest increase in quantity (27,821 tons, 10 percent).

As in previous years, calcium sulfate accounted for most of the tonnage of secondary and trace nutrient materials; the proportion was 94 percent (738,499 tons) in 1955-56.

The weighted average primary nutrient content of the various classes of materials consumed is given in table 7. These averages are based on the composition and tonnage of the individual materials comprising the respective classes. In 1955-56 for materials containing only nitrogen, P_2O_5 , or K_2O , the respective national averages were 32.35, 16.55 (available P_2O_5), and 55.64 percent, while the multiple-nutrient materials averaged 22.71 percent. The corresponding averages for these classes in 1954-55 were 31.00, 19.37 (revised), 54.56, and 21.64 percent. That the national averages for most of the classes were higher in 1955-56 than in the preceding year reflects generally the greater use of the higher analysis products. The lower average for available P_2O_5 results from the large increase in the tonnage of phosphate rock which contains only 3 percent of available P_2O_5 .

PRIMARY NUTRIENTS

The quantities of primary nutrients in fertilizers are based on the average analyses of samples of the various products as published by fertilizer control official for the State in which they were consumed, rather than on the manufacturers' guarantees. Thus, the overruns or underruns of nutrients from the guarantees are taken into account. This gives more nearly the actual tonnages of nutrients than would be the case if only the guarantees were used. The actual nutrient content usually averages somewhat higher than the guarantee.

In 1955-56 the primary nutrient content of fertilizers (mixtures and direct application materials) comprised 1,932,603 tons of nitrogen, 2,247,420 tons of available P_2O_5 (2,643,418 tons of total P_2O_5), and 1,874,718 tons of K_2O (table 6). Compared with the preceding year, consumption of these nutrients decreased by 27,933 tons (1.42 percent) of nitrogen, 36,240 tons (1.59 percent) of available P_2O_5 , and 225 tons (0.01 percent) of K_2O , while total P_2O_5 increased 46,699 tons (1.80 percent). Although the consumption of fertilizers bearing these nutrients in 1955-56 was 2.42 percent below that in 1954-55, the total quantity of the nutrients (nitrogen, available P_2O_5 , K_2O) themselves was only 1.05 percent lower.

Mixed fertilizers supplied 41.22 percent of the nitrogen, 79.43 percent of the available P_2O_5 (71.79 percent of the total P_2O_5), and 88.28 percent of the K_2O . The respective quantities of these nutrients consumed as mixed fertilizers were 0.86, 1.98, 2.37, and 0.18 percent lower than in the preceding year. While the tonnage of mixed fertilizers in 1955-56 was 3.73 percent lower than that in 1954-55, the total quantity of nutrients (N, available P_2O_5 , K_2O) contained therein was only 1.07 percent lower.

Fertilizer materials for direct application supplied 58.78 percent of the nitrogen, 20.57 percent of the available P_2O_5 (28.21 percent of the total P_2O_5), and 11.72 percent of the K_2O . The quantities of nitrogen and available P_2O_5 consumed as fertilizer materials were, respectively, 1.82 and 0.05 percent lower, while the quantities of total P_2O_5 and K_2O were, respectively, 14.20 and 1.24 percent higher than in the preceding year. Although the tonnage of materials bearing these nutrients increased 0.62 percent over that in 1954-55, the total quantity of nutrients (N, available P_2O_5 , K_2O) supplied thereby decreased 1.01 percent. In 1955-56 the increased consumption of phosphate rock was largely responsible for the increase in the tonnage of materials and of total P_2O_5 . The phosphate rock used for direct application averages 32 percent total P_2O_5 but only 3 percent available P_2O_5 .

The percentage difference in the quantity of primary plant nutrients in fertilizer mixtures and materials used in 1955-56, as compared with the quantity in the preceding year, is shown by regions in table 6a.

Table 6a. - Percent of increase or decrease in consumption of primary nutrients—year ended June 30, 1956 as compared with preceding year.

Region	N	P ₂ O ₅		K ₂ O	Total (N, avail. P ₂ O ₅ , K ₂ O)
		Available	Total		
<u>MIXTURES</u>					
New England	+ 0.25	-0.31	- 1.34	- 4.78	- 2.03
Middle Atlantic	- 5.85	-7.22	- 7.18	- 4.65	- 5.98
South Atlantic	- .99	-1.55	- 1.40	+ 1.10	- .38
East North Central	+ 5.74	-2.26	- 2.78	- 2.56	- 1.38
West North Central	- 9.53	-6.90	- 8.22	+ 1.46	- 4.86
East South Central	+ .63	+2.53	+ 1.94	+ 5.48	+ 3.28
West South Central	+ 7.23	+8.71	+ 8.23	+ 7.00	+ 7.84
Mountain	- 1.95	-4.44	- 5.31	+ 6.70	- 2.41
Pacific	+ 1.04	+7.80	+ 7.51	+14.92	+ 6.92
Continental U. S.	- .43	-1.94	- 2.32	- .03	- .92
Territories	-10.82	-5.79	- 7.72	- 7.83	- 8.60
United States & Territories	- .86	-1.98	- 2.37	- .18	- 1.07
<u>MATERIALS</u>					
New England	- 7.14	-2.51	- 4.11	-15.87	- 5.69
Middle Atlantic	-13.11	-7.78	- 9.38	- 1.29	- 9.83
South Atlantic	- 5.13	+ .27	+ 7.27	- 6.76	- 4.88
East North Central	- 7.88	+2.74	+32.57	+ 2.84	- 1.78
West North Central	-16.27	-5.87	+15.96	+ 6.12	-11.01
East South Central	+ 3.27	-1.91	+ 2.36	- 3.18	+ 1.46
West South Central	+10.86	+4.34	+ 4.17	+11.33	+ 9.15
Mountain	- 2.86	+1.21	- .19	+31.26	- .86
Pacific	+ 5.28	+7.13	+ 6.12	- 2.43	+ 5.37
Continental U. S.	- 1.66	- .11	+14.18	+ .98	- .95
Territories	- 7.94	+7.92	+18.04	+ 6.97	- 3.56
United States & Territories	- 1.82	- .05	+14.20	+ 1.24	- 1.01

The West South Central region was the only region in which increases occurred in the quantities of each of the nutrients in both mixtures and materials. In 1955-56 the total quantity of primary nutrients in the mixed fertilizers used in the United States and Territories decreased 1.07 percent; nitrogen, available P_2O_5 , and K_2O decreased 0.86, 1.98, and 0.18 percent, respectively. In the case of fertilizer materials the total quantity of nutrients decreased 1.01 percent; nitrogen and P_2O_5 also decreased—1.82 and 0.05 percent, respectively—but K_2O increased 1.24 percent.

Tables 6b, 6c, and 6d show the quantities of primary nutrients in the materials applied directly as fertilizers in the years ended June 30, 1955 and 1956.

Table 6b. - Nitrogen consumed in direct application materials—
years ended June 30, 1955 and 1956.

Material	Nitrogen, year ended June 30		Change
	1955	1956	
	<u>tons</u>	<u>tons</u>	<u>tons</u>
Ammonia, anhydrous	290,337	343,578	+53,241
" , aqua	46,617	62,510	+15,893
Ammonium nitrate	375,318	316,964	-58,354
Ammonium nitrate-limestone mix.	73,753	64,776	- 8,977
Ammonium sulfate	109,245	86,878	-22,367
Calcium cyanamide	14,121	13,515	- 606
Calcium nitrate	8,667	8,630	- 37
Natural organic materials	13,804	13,204	- 600
Nitrogen solutions	38,362	34,493	- 3,869
Phosphate materials	52,973	56,976	+ 4,003
Potash materials	2,525	3,153	+ 628
Sodium nitrate	99,463	87,699	-11,764
Urea	30,973	41,785	+10,812
Other chemical nitrogen materials	837	1,769	+ 932
Total	1,156,995	1,135,930	-21,065

Table 6c. - Available P_2O_5 consumed in direct application materials—years ended June 30, 1955 and 1956.

Material	Available P_2O_5 year ended June 30		Change
	1955	1956	
	<u>tons</u>	<u>tons</u>	<u>tons</u>
Ammonium phosphate: 11-48	18,241	23,265	+ 5,024
" " : 13-39	14,574	16,568	+ 1,994
Ammonium phosphate-sulfate: 16-20	53,240	52,295	- 945
Basic slag	12,252	14,115	+ 1,863
Calcium metaphosphate	27,100	26,786	- 314
Diammonium phosphate: 21-53	1,508	7,523	+ 6,015
Natural organic materials	12,282	9,740	- 2,542
Phosphate rock & colloidal phosphate	17,924	27,757	+ 9,833
Phosphoric acid	7,669	7,515	- 154
Potash materials	211	73	- 138
Superphosphate: 22% and under	137,878	122,500	-15,378
" : over 22%	153,528	147,622	- 5,906
Other phosphates	6,166	6,588	+ 422
Total	462,573	462,347	- 226

Table 6d. - K_2O consumed in direct application materials—years ended June 30, 1955 and 1956.

Material	K_2O , year ended June 30		Change
	1955	1956	
	<u>tons</u>	<u>tons</u>	<u>tons</u>
Cotton hull ashes	279	368	+ 89
Lime-potash mixtures	1,477	1,418	- 59
Manure salts	551	246	- 305
Natural organic materials	7,789	5,838	-1,951
Potassium chloride	190,258	194,754	+4,496
" magnesium sulfate	1,418	1,480	+ 62
" sodium nitrate	1,996	2,518	+ 522
" sulfate	12,764	12,926	+ 162
Wood ashes	144	129	- 15
Other potash materials	403	89	- 314
Total	217,079	219,766	+2,687

Table 1. - Consumption of fertilizers, year ended June 30, 1956^{1/}

State and Region	Mixtures			Materials ^{2/}			Grand total	Compared with year ended June 30, 1955	
	July 1 - Dec. 31, 1955	Jan. 1 - June 30, 1956	Total	July 1 - Dec. 31, 1955	Jan. 1 - June 30, 1956	Total		Fertilizers ^{3/}	Total N, avail. P ₂ O ₅ & K ₂ O
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Percent	Percent
Maine	10,654	167,361	178,015	1,456	3,896	5,352	183,367	101	103
New Hampshire	1,622	10,553	12,175	1,317	2,835	4,152	16,327	89	89
Vermont	3,098	29,458	32,556	10,375	7,768	18,143	50,699	104	106
Massachusetts	9,350	49,158	58,508	4,340	11,426	15,766	74,274	87	86
Rhode Island	1,412	11,709	13,121	354	1,431	1,785	14,906	90	87
Connecticut	6,845	46,350	53,195	4,421	19,068	23,489	76,684	87	91
New England	32,981	314,589	347,570	22,263	46,424	68,687	416,257	95	98
New York	111,267	381,250	492,517	26,455	54,953	81,408	573,925	91	93
New Jersey	43,806	195,357	239,163	6,429	16,711	23,140	262,303	92	94
Pennsylvania	170,294	414,943	585,237	21,699	45,625	67,324	652,561	92	95
Delaware	12,921	67,730	80,651	1,034	3,692	4,726	85,377	89	93
District of Columbia	449	1,326	1,775	297	469	766	2,541	90	92
Maryland	66,983	198,673	265,656	5,475	10,270	15,745	281,401	88	89
West Virginia	16,167	58,718	74,885	3,292	6,712	10,004	84,889	104	104
Middle Atlantic	421,887	1,317,997	1,739,884	64,681	138,432	203,113	1,942,997	92	94
Virginia	150,983	521,580	672,563	20,675	84,626	105,301	777,864	96	97
North Carolina	200,189	1,150,965	1,351,154	49,003	301,261	350,264	1,701,418	92	92
South Carolina	89,212	525,991	615,203	30,865	218,022	248,887	864,090	93	97
Georgia	178,973	820,141	999,114	54,816	217,126	271,942	1,271,056	99	103
Florida	505,789	695,672	1,201,461	54,038	83,480	137,518	1,338,979	109	109
South Atlantic	1,125,146	3,714,349	4,839,495	209,397	904,515	1,113,912	5,953,407	97	99
Ohio	293,150	692,167	985,317	16,588	48,226	64,814	1,050,131	97	97
Indiana	229,030	691,973	921,003	26,408	116,572	142,980	1,063,983	92	97
Illinois	146,542	368,395	514,937	365,146	480,375	845,521	1,360,458	112	98
Michigan	172,897	405,834	578,731	13,026	36,241	49,267	627,998	98	103
Wisconsin	65,242	314,619	379,861	9,871	22,542	32,413	412,274	96	102
East North Central	906,861	2,472,988	3,379,849	431,039	703,956	1,134,995	4,514,844	100	99
Minnesota	47,788	241,535	289,323	15,469	63,316	78,785	368,108	98	102
Iowa	82,805	223,038	305,843	49,143	94,320	143,463	449,306	77	77
Missouri	180,880	273,888	454,768	179,345	176,296	355,641	810,409	119	105
North Dakota	2,866	20,992	23,858	7,981	37,329	45,310	69,168	110	115
South Dakota	1,737	7,684	9,421	4,210	12,969	17,179	26,600	70	76
Nebraska	3,708	16,802	20,510	22,196	90,284	112,480	132,990	64	79
Kansas	48,509	29,565	78,074	68,113	61,557	129,670	207,744	89	93
West North Central	368,293	813,504	1,181,797	346,457	536,071	882,528	2,064,325	94	92
Kentucky	61,565	370,689	432,254	28,074	74,807	102,881	535,135	102	105
Tennessee	88,799	321,409	410,208	29,888	76,043	105,931	516,139	97	103
Alabama	126,327	679,496	805,823	69,162	223,909	293,071	1,098,894	95	99
Mississippi	19,648	312,768	332,416	175,589	242,217	417,806	750,222	104	105
East South Central	296,339	1,684,362	1,980,701	302,713	616,976	919,689	2,900,390	99	103
Arkansas	29,879	145,352	175,231	29,882	159,206	188,088	363,319	109	117
Louisiana	29,922	133,602	163,524	34,108	105,853	139,961	303,485	95	100
Oklahoma	34,604	41,928	76,532	34,912	24,060	58,972	135,504	107	110
Texas	87,671	200,131	287,802	106,122	172,579	278,701	566,503	96	107
West South Central	182,076	521,013	703,089	205,024	460,698	665,722	1,368,811	100	108
Montana	903	2,834	3,737	10,010	19,221	29,231	32,968	137	135
Idaho	426	4,956	5,382	14,846	44,191	59,037	64,419	57	70
Wyoming	66	1,773	1,839	1,078	8,062	9,140	10,979	100	98
Colorado	2,752	9,289	12,041	8,400	33,109	41,509	53,550	111	112
New Mexico	314	1,517	1,831	5,169	21,990	27,159	28,990	89	92
Arizona	3,788	13,685	17,473	53,562	82,529	136,091	153,564	94	103
Utah	576	3,950	4,526	3,359	23,099	26,458	30,984	111	117
Nevada	477	570	1,047	1,152	2,083	3,235	4,282	176	166
Mountain	9,302	38,574	47,876	97,576	234,284	331,860	379,736	90	99
Washington	6,052	29,902	35,954	47,423	86,462	133,885	169,839	85	90
Oregon	4,550	21,900	26,450	30,099	113,394	143,493	169,943	99	100
California	85,351	161,143	246,494	691,527	975,582	1,667,109	1,913,603	107	110
Pacific	95,953	212,945	308,898	769,049	1,175,438	1,944,487	2,253,385	104	106
Continental U. S.	3,438,838	11,090,321	14,529,159	2,448,199	4,816,794	7,264,993	21,794,152	98	99
Hawaii	34,782	30,603	65,385	40,941	59,758	100,699	166,084	106	107
Puerto Rico	72,293	108,816	181,109	19,498	32,227	51,725	232,834	82	84
Alaska ^{4/}	---	---	---	---	---	---	---	---	---
Territories	107,075	139,419	246,494	60,439	91,985	152,424	398,918	90	93
Tota.: 1955-56	3,545,913	11,229,740	14,775,653	2,508,638	4,908,779	7,417,417	22,193,070	98	99
1954-55	3,621,898	11,725,952	15,347,850	2,504,621	6/4,873,991	7,378,612	22,726,462	100	100
1953-54	3,370,022	12,171,054	15,541,076	2,603,399	4,629,024	7,232,423	22,773,499	101	96

1/ Includes: Ground phosphate rock, basic slag, secondary and trace nutrient materials, such as, borax, sulfur, magnesium sulfate, etc., used as separate materials, also fertilizers distributed by Government agencies. Does not include liming materials, but includes gypsum. 2/ Does not include the quantities of materials used for manufacture of commercial mixtures. 3/ Fertilizers which were guaranteed to contain one or more of the primary plant nutrients (N, P₂O₅, K₂O). 4/ Data not available - estimated less than 1500 tons. 5/ Revised by deletion of 737 tons of basic slag from Pennsylvania total and addition of 6,426 tons of gypsum to North Carolina total. 6/ Revised by deletion of 7,804 tons of basic slag from Pennsylvania total and addition of 4,872 tons of gypsum to North Carolina total.

Table 2. - Consumption of principal mixed fertilizers in the Continental United States, by grades, years ended June 30, 1955 and 1956

Grade	Consumption ^{1/}		Proportion of total		Grade	Consumption ^{1/}		Proportion of total	
	1955	1956	1955	1956		1955	1956	1955	1956
	Tons	Tons	Percent	Percent		Tons	Tons	Percent	Percent
0-8-24	5,115	5,540	0.03	0.03	6-9-10	0	4,094	0	.03
0-9-27	16,885	11,816	.11	.08	6-9-12	51,069	36,971	.34	.25
0-10-10	2,965	3,547	.02	.03	6-10-4	71,995	77,937	.48	.54
0-10-20	55,695	62,640	.37	.43	6-10-8	3,629	5,819	.02	.04
0-10-30	45,605	41,660	.30	.29	6-12-4	3,278	3,944	.02	.02
0-12-12	28,720	20,064	.19	.13	6-12-6	51,456	41,708	.34	.29
0-12-20	11,983	16,373	.08	.12	6-12-12	280,573	334,595	1.86	2.30
0-12-36	7,691	10,707	.05	.07	6-12-15	2,212	3,360	.02	.03
0-14-10	5,108	3,394	.04	.02	6-12-18	2,516	6,610	.02	.04
0-14-14	129,982	174,442	.86	1.21	6-18-6	588	3,215	(2/)	.02
0-15-30	16,380	15,256	.11	.10	6-18-18	2,491	8,834	.02	.07
0-15-45	3,154	4,879	.02	.03	6-20-20	4,501	4,499	.03	.03
0-16-8	25,190	46,697	.17	.33	6-24-0	13,397	7,909	.09	.05
0-20-10	16,079	11,335	.10	.07	6-24-12	65,377	84,454	.43	.58
0-20-20	341,795	310,275	2.27	2.14	6-24-24	22,433	44,673	.15	.31
0-24-24	7,522	8,912	.05	.06	7-7-7	29,851	24,767	.20	.17
0-25-25	10,333	17,837	.07	.12	7-8-8	5,705	7,705	.03	.05
0-30-15	9,255	11,587	.06	.08	7-9-9	3,366	3,737	.03	.03
0-30-30	18,623	20,984	.13	.15	7-14-7	2,733	3,902	.01	.03
2-10-8	6,173	4,150	.04	.03	8-0-8	16,007	12,278	.11	.08
2-12-6	44,391	27,156	.29	.18	8-0-12	6,465	5,820	.04	.04
2-12-12	438,393	400,811	2.91	2.76	8-0-24	20,395	21,111	.14	.15
3-8-8	12,084	9,173	.08	.06	8-3-8	1,580	12,252	.01	.08
3-9-6	494,506	367,517	3.28	2.53	8-4-6	2,108	6,150	.01	.04
3-9-9	494,438	478,163	3.28	3.29	8-4-8	41,629	37,168	.28	.26
3-9-12	28,624	33,474	.19	.24	8-6-4	5,610	6,908	.04	.05
3-9-15	11,291	8,400	.08	.05	8-6-6	4,159	4,004	.02	.02
3-9-18	80,324	70,990	.53	.49	8-6-8	3,721	20,456	.03	.14
3-9-27	109,446	95,000	.73	.66	8-8-4	19,033	16,218	.13	.12
3-12-6	210,639	152,357	1.40	1.04	8-8-8	226,634	207,987	1.50	1.43
3-12-12	1,413,525	1,171,479	9.38	8.07	8-9-10	7,641	8,164	.05	.06
3-18-9	50,074	41,699	.33	.28	8-10-12	11,976	11,169	.08	.07
4-4-2	3,013	5,050	.02	.04	8-12-12	39,478	55,748	.26	.39
4-6-6	11,965	8,503	.08	.06	8-12-16	17,501	16,119	.12	.11
4-6-8	43,472	38,981	.29	.27	8-16-8	5,860	6,189	.04	.04
4-7-5	117,706	115,248	.78	.79	8-16-16	126,175	140,341	.83	.97
4-8-4	12,799	11,311	.08	.08	8-24-0	2,624	5,479	.02	.03
4-8-6	248,738	190,357	1.65	1.31	8-24-8	85,837	72,908	.57	.51
4-8-8	280,857	219,923	1.87	1.51	8-24-12	9,418	13,576	.06	.09
4-8-10	97,526	115,008	.64	.79	8-32-0	63,110	60,377	.42	.42
4-8-12	56,399	53,139	.38	.37	9-6-6	10,089	10,609	.07	.07
4-9-3	69,566	63,442	.46	.43	9-9-9	3,879	10,906	.03	.07
4-10-6	424,671	368,797	2.82	2.54	9-36-0	3,324	3,006	.02	.02
4-10-7	640,994	469,543	4.25	3.23	10-0-8	2,204	4,020	.01	.03
4-10-8	2,365	3,071	.02	.03	10-0-10	29,688	22,687	.20	.16
4-10-10	8,649	10,657	.06	.07	10-0-12	4,714	3,700	.03	.02
4-12-4	104,024	84,300	.69	.58	10-2-10	1,010	5,504	.01	.04
4-12-8	149,971	146,648	.99	1.01	10-4-10	3,753	4,808	.02	.03
4-12-12	501,692	737,215	3.33	5.07	10-5-5	3,067	3,657	.02	.03
4-12-16	3,514	3,071	.03	.02	10-6-4	40,540	42,175	.27	.29
4-16-8	30,901	23,225	.20	.16	10-10-0	8,703	8,445	.06	.06
4-16-16	702,756	615,596	4.66	4.24	10-10-5	23,529	22,569	.16	.15
4-24-12	38,088	24,865	.26	.17	10-10-10	725,133	659,090	4.81	4.54
5-3-6	3,802	3,559	.02	.03	10-15-15	4,824	6,108	.03	.04
5-5-5	6,912	3,391	.05	.02	10-16-8	7,661	8,274	.05	.06
5-5-8	6,551	7,085	.04	.05	10-20-0	102,526	63,825	.68	.44
5-6-6	3,535	3,719	.03	.02	10-20-10	86,642	121,165	.58	.83
5-6-8	12,764	9,399	.08	.07	10-20-20	15,143	23,440	.10	.16
5-7-5	21,400	22,008	.14	.15	10-30-10	5,211	4,684	.03	.04
5-8-5	1,641	3,964	.01	.03	11-8-4	3,131	4,891	.02	.03
5-8-7	14,311	10,294	.10	.07	12-0-10	19,820	13,570	.13	.09
5-8-8	3,653	5,307	.02	.03	12-0-12	5,965	7,832	.04	.06
5-10-5	764,044	678,083	5.07	4.67	12-6-6	5,683	7,150	.04	.05
5-10-10	1,379,753	1,296,912	9.16	8.93	12-12-12	306,858	500,839	2.04	3.44
5-10-15	111,158	128,086	.74	.88	12-24-12	27,327	26,762	.18	.19
5-10-20	8,761	8,589	.06	.06	12-36-12	1,750	4,729	.01	.03
5-10-30	377	3,317	(2/)	.02	12-24-0	8,272	4,597	.06	.03
5-15-10	7,718	3,980	.05	.03	13-13-13	31,459	38,058	.20	.26
5-15-15	18,010	6,009	.12	.04	14-0-7	0	11,641	0	.08
5-15-30	5,310	6,298	.03	.04	14-0-14	46,804	47,436	.31	.33
5-20-10	55,880	58,433	.37	.41	14-14-14	33,782	43,913	.23	.30
5-20-20	564,263	699,511	3.75	4.81	15-0-12	3,549	3,181	.02	.02
5-40-0	0	5,966	0	.04	15-0-15	4,043	4,902	.03	.04
6-3-6	23,415	14,094	.15	.10	15-8-4	6,731	7,815	.04	.05
6-4-6	15,292	19,139	.11	.13	15-15-0	55,637	31,462	.37	.22
6-4-8	38,744	43,944	.25	.30	15-30-0	2,958	4,174	.02	.03
6-4-12	924	3,963	.01	.03	16-8-8	3,313	3,052	.02	.02
6-6-6	77,092	85,327	.51	.59	16-10-0	7,775	4,996	.06	.03
6-6-8	16,469	31,430	.11	.21	16-48-0	236	5,092	(2/)	.04
6-6-12	11,492	9,934	.08	.07	17-7-0	17,813	16,192	.12	.11
6-6-18	13,616	11,070	.09	.08	20-0-20	7,399	6,417	.05	.04
6-7-7	4,757	4,126	.03	.03					
6-8-2	2,938	5,281	.02	.03					
6-8-4	123,438	104,043	.82	.72					
6-8-6	159,826	123,735	1.06	.85					
6-8-8	264,922	268,288	1.76	1.85					
6-8-12	23,125	24,559	.15	.17					
6-9-3	5,708	5,280	.04	.03					
6-9-6	8,983	8,802	.06	.06					
6-9-9	6,329	3,601	.04	.03					
					171 Listed grades	14,504,643	13,973,318	96.26	96.17
					Other grades reported	3/ 435,397	4/ 358,045	2.88	2.46
					Not reported by grade	128,147	197,796	0.86	1.37
					Total	5/ 15,068,187	5/ 14,529,159	100.00	100.00

1/ Grades consumed in amounts of 3,000 tons or more in year ended June 30, 1956 and their consumption in year ended June 30, 1955. 2/ Less than 0.005 percent. 3/ 1,171 grades. 4/ 1,231 grades. 5/ Does not include the quantity of mixtures consumed in the Territories.

Table 3. - Consumption of mixed fertilizers, by grades in each State and Region,
year ended June 30, 1956

State	Fifteen principal grades consumed in region															All other grades		Total tons
	Tons															Number	Tons	
New England																		
Maine	8-12-12	5-10-10	6-9-12	10-10-10	8-16-16	8-12-16	0-20-20	6-3-6	5-9-7	8-9-10	7-7-7	10-15-15	0-15-30	6-10-4	5-10-5	40	19,607	178,015
New Hampshire	51,077	12,795	36,886	11,243	12,150	16,071	745	0	2,134	8,164	475	6,048	93	303	224	27	955	32,556
Vermont	585	2,528	3,436	0	383	0	12,293	15	666	0	498	0	1,015	542	102	26	1,754	58,508
Massachusetts	187	6,127	0	3,434	5,917	0	0	0	129	0	3,344	0	2,064	70	187	33	12,824	53,195
Rhode Island	847	14,057	0	7,302	4,450	0	596	4,536	4,518	0	3,344	0	960	2,875	2,199	33	12,824	58,508
Connecticut	258	7,111	0	585	185	0	271	521	521	0	594	0	153	442	195	25	2,806	13,121
Connecticut	1,203	10,092	0	5,614	2,200	0	1,246	8,025	2,244	0	2,165	0	1,695	1,565	2,065	61	15,081	53,195
Total	54,157	52,710	36,886	29,628	28,338	16,071	15,534	10,212	8,164	7,470	6,048	5,980	5,797	4,972	4,972	93	53,027	347,570
Middle Atlantic																		
New York	5-10-10	5-10-5	10-10-10	3-12-6	8-16-16	0-20-20	6-12-6	2-12-12	4-8-12	6-12-12	3-12-12	4-12-12	0-14-14	8-8-8	5-10-15	71	43,108	492,517
New Jersey	153,338	114,040	60,489	6,821	34,928	14,771	31,912	35	4,035	12,703	3,006	7	2,292	4,116	6,916	70	51,744	239,163
Pennsylvania	124,253	24,109	8,075	1,517	1,484	2,416	1,783	15	325	3,539	1,685	53	2,362	13,562	1,763	106	53,298	585,237
Delaware	262,521	22,268	57,483	71,519	24,578	29,453	2,145	6,761	8,176	7,811	11,248	18,359	5,955	1,173	2,423	60	7,761	80,651
District of Columbia	38,587	1,299	6,663	1,230	3,592	1,817	0	4,937	1,081	1,576	1,791	1,233	2,951	263	5,936	0	962	1,775
Maryland	36	644	19	0	0	0	0	4	4	4	4	0	0	106	0	17	962	1,775
Maryland	88,827	24,031	15,587	36,861	4,163	5,359	6	16,261	14,931	1,720	9,680	5,118	5,520	1,676	1,611	86	34,305	265,656
West Virginia	33,143	2,688	3,122	11,916	256	5,492	0	2,990	1	563	279	151	2,849	13	82	46	11,340	74,885
Total	700,705	189,079	151,438	129,864	69,001	59,308	35,846	30,999	28,553	27,916	27,689	25,399	21,929	20,909	18,731	175	202,518	1,739,884
South Atlantic																		
Virginia	4-12-12	3-9-9	5-10-10	4-10-6	2-12-12	3-9-6	4-8-8	4-8-6	5-10-5	4-7-5	4-8-10	0-14-14	3-12-12	6-8-6	6-6-6	52	138,333	672,563
North Carolina	9,579	42,610	133,775	98	193,709	41,071	2	0	64,355	0	7,170	30,586	41	11,234	0	22	180,621	1,351,194
South Carolina	8,741	205,594	208,464	231,254	147,158	223,851	0	0	16,252	0	68,923	10,374	0	4,922	0	23	70,787	615,203
Georgia	27,267	146,667	18,144	136,606	0	25,666	17,598	0	48,483	0	0	4,155	80,028	2,842	0	97	95,687	999,114
Florida	54,091	74,563	7,624	47	19,668	1,502	111,203	149,744	4,845	95	0	2,659	2,187	15,199	0	23	777,092	1,201,461
Total	24,073	7,329	4,642	774	4,751	0	77,259	40,442	6,934	115,153	38,672	6,510	5,177	7,647	84,966	837	1,262,520	4,839,495
East North Central																		
Ohio	3-12-12	4-16-16	5-20-20	10-10-10	12-12-12	0-20-20	5-10-10	3-9-27	3-18-9	0-10-30	6-12-12	3-9-18	6-24-24	8-16-16	6-10-4	179	278,708	3,379,861
Indiana	41,340	57,645	109,253	71,772	58,478	31,066	108,560	1,145	14,730	1,989	15,072	6,990	2,041	17,070	7,449	87	68,217	985,317
Illinois	171,610	292,650	143,898	98,771	76,252	3,236	23,720	5,317	10,990	5,015	2,620	9,055	2,666	2,925	3,187	103	67,668	921,003
Michigan	97,665	102,175	52,871	84,229	44,994	18,944	243	29,577	718	3,222	5,262	2,666	7,165	373	3,433	96	61,400	514,937
Wisconsin	136,789	104,209	102,244	40,140	77,061	17,929	4,186	3,302	19,912	3,266	8,630	3,618	864	1,200	6,837	81	48,544	379,861
Total	69,704	51,280	94,607	30,304	5,509	34,255	0	18,318	957	18,813	3,937	11,704	5,808	2,226	0	57	32,439	379,861
West North Central																		
Minnesota	12-12-12	5-20-20	6-24-12	3-12-12	8-24-8	10-10-10	0-20-20	5-20-10	5-20-10	4-12-4	4-16-16	10-20-0	8-8-8	15-15-0	8-16-16	74	59,718	289,323
Iowa	3,627	71,656	62,070	1,965	20,422	28,723	23,670	7,940	9,110	0	22,757	1,759	39	251	14,909	204	53,190	305,843
Missouri	20,222	89,648	4,366	12,712	601	28,763	9,623	40,890	13,277	64	9,737	3,709	31,513	3,002	0	28	74,525	454,768
North Dakota	152,500	12,936	0	53,337	44,884	5	19,631	5	0	36,178	0	233	84	1,080	571	51	9,522	23,898
South Dakota	247	500	3,398	103	5	276	47	136	8,556	1	1	0	0	1,215	20	46	2,208	9,421
Nebraska	102	17	336	13	33	102	45	102	3,105	32	1	2,210	0	1,215	20	0	2,208	9,421
Kansas	206	100	48	166	166	162	426	102	3,960	32	0	3,374	10	3,269	0	71	8,655	20,510
Total	3,848	606	7	833	21,208	964	635	0	3,213	4,450	117	13,655	496	8,003	68	56	19,971	78,074
Total	180,952	175,463	70,225	68,963	66,897	60,710	50,569	49,086	41,221	40,725	39,270	38,903	32,389	22,948	16,687	259	226,789	1,181,797

(Continued)

Table 3 (Continued)

	East South Central														
	4-10-7	6-12-12	6-8-8	4-12-12	5-10-5	6-8-4	5-10-15	4-12-8	3-9-6	3-12-12	0-14-14	0-16-8	5-10-10	6-8-6	10-10-10
Kentucky	0	17,753	41	159	3,977	0	84,569	84,951	17,409	50,449	917	0	21,579	30,833	22,766
Tennessee	1,524	218,712	2,941	2,103	3,973	1,394	12,134	7,322	59,041	16,449	248	0	8,266	883	3,734
Alabama	414,558	42,518	156	124,894	1,838	94,786	0	0	2	2	50,526	40,006	22	28	404
Mississippi	4,719	1,856	167,963	17	99,361	3,586	0	0	0	2,084	5,482	625	8,686	77	695
Total	420,801	239,477	213,463	127,173	107,079	99,766	96,703	92,273	75,452	69,992	57,173	40,631	38,553	31,821	27,599
	West South Central														
	5-10-5	10-20-10	8-8-8	12-12-12	3-12-12	4-12-4	6-8-12	12-24-12	10-20-0	13-13-13	6-8-8	5-20-20	3-9-18	5-10-10	0-20-20
Arkansas	46,917	22,013	3,014	11,770	1,815	1,116	22,583	1,430	158	3,547	52	1,456	10,955	1,618	8,343
Louisiana	25,592	4,106	32,627	18,699	22,555	9,928	711	1,783	1	3,243	12,241	8,044	16	3,156	2,031
Oklahoma	27,355	17,542	479	365	545	4,703	0	2,934	7,096	331	0	346	1,050	2,147	61
Texas	118,239	53,698	15,324	3,787	3,221	7,896	170	12,599	11,286	6,138	113	2,194	11	4,326	293
Total	218,103	97,359	51,644	34,621	28,136	23,643	23,464	18,746	18,941	13,292	12,406	12,040	12,032	11,247	10,728
	Mountain														
	10-20-0	6-10-4	10-16-8	20-20-0	10-20-5	10-10-10	27-14-0	10-10-10	10-20-10	20-10-0	10-18-5	6-30-0	15-11-0	12-24-0	18-9-0
Montana	2,126	199	0	0	0	0	80	0	8	0	204	615	0	0	0
Idaho	478	142	854	44	0	44	605	40	0	2	458	218	1,020	9	0
Wyoming	488	44	0	0	0	0	0	0	16	0	209	12	0	132	0
Colorado	479	834	1,603	48	0	595	0	0	265	76	386	205	0	836	0
New Mexico	135	0	0	639	0	76	0	15	102	0	0	0	0	864	0
Arizona	2,556	0	0	1,713	2,152	1,049	861	1,441	1,104	1,360	0	0	0	0	827
Utah	361	2,251	31	0	0	17	189	0	0	0	139	74	0	4,526	34
Nevada	67	725	0	0	0	55	40	0	0	0	0	0	0	1,464	9
Total	6,690	4,195	2,488	2,400	2,152	1,836	1,775	1,196	1,495	1,438	1,396	1,124	1,020	977	827
	Pacific														
	10-10-10	10-10-5	17-7-0	6-10-4	8-8-4	8-10-12	15-8-4	10-16-8	4-4-2	16-10-0	11-8-4	6-20-20	4-10-10	10-10-0	6-9-6
Washington	830	157	0	3,026	0	0	0	0	0	0	0	1,642	0	19	0
Oregon	837	121	0	4,109	0	5	8	5,555	0	0	0	2,857	0	0	0
California	20,537	19,460	15,903	7,305	14,214	8,438	7,807	0	5,015	4,992	4,891	0	4,379	4,345	4,086
Total	22,204	19,738	15,903	14,440	14,214	8,443	7,815	5,786	5,015	4,992	4,891	4,499	4,379	4,364	4,086
	Territories ^{1/}														
	14-4-10	15-4-7	14-2-8	10-10-8	6-8-10	8-6-10	12-6-10	12-4-10	12-3-16	13-3-12	9-10-5	12-2-10	12-10-5	16-4-5	10-6-14
Puerto Rico	33,685	16,577	15,775	14,868	12,365	10,626	9,736	8,951	7,658	7,123	4,322	3,891	3,700	3,686	3,371
	Continental United States														
	5-10-10	3-12-12	4-12-12	5-20-20	5-10-5	10-10-10	4-16-16	12-12-12	3-9-9	4-10-7	2-12-12	4-10-6	3-9-6	6-12-12	0-20-20
New England	52,710	653	0	0	4,972	29,628	0	2,000	0	0	54	0	0	1,999	15,534
Middle Atlantic	700,705	27,689	25,399	344	189,079	151,438	844	4,809	100	0	30,999	0	15	27,916	59,308
South Atlantic	372,649	87,433	583,751	647	140,869	34,908	96	5,121	476,763	48,742	365,286	368,779	292,050	12,324	5,271
East North Central	116,225	889,608	614	502,873	10,362	325,216	567,959	262,254	239	0	0	0	0	37,916	146,283
West North Central	1,151	68,963	146	175,463	6,268	60,710	39,270	180,952	0	0	0	0	0	14,090	50,569
East South Central	38,553	68,962	127,173	7,759	107,079	27,599	7,464	11,076	1,039	420,801	4,466	0	75,452	238,477	21,853
West South Central	11,247	28,136	132	12,040	218,103	5,651	3	34,621	12	0	0	0	0	1,770	10,728
Mountain	5	0	0	0	590	1,836	0	6	0	0	0	0	0	0	219
Pacific	3,627	15	0	385	101	22,204	0	0	10	0	0	18	0	103	510
Total	1,296,912	1,171,479	737,215	699,511	678,083	659,090	615,596	500,839	478,163	469,543	400,811	368,797	367,517	334,595	310,275

1/ Exclusive of mixtures not reported by grade. 2/ Including the tonnage of mixtures not reported by grade. 3/ Total number of mixtures ranges over 500 but only 15 reported by grade. 4/ Total consumption in Hawaii was 65,395 tons of mixed fertilizers, comprising 130 grades, which were manufactured to consumer's specifications. Data for Alaska not available. Estimated less than 500 tons.

Table 4. - Fertilizer materials consumed for direct application, by States, year ended June 30, 1956, in tons^{1/}

State and Region	Chemical nitrogen materials										Phosphate materials ^{2/}				Potash materials		Total primary nutrient materials	Secondary and trace nutrient materials ^{3/}		
	Ammonia (anhydrous)	Ammonium nitrate	Ammonium nitrate-limestone mixtures	Ammonium sulfate	Calcium cyanamide	Nitrogen solutions and aqueous ammoniacs	Sodium nitrate	Urea	Other ^{2/}	Natural organics ^{2/}	Phosphate rocks ^{3/}	Superphosphates		Other	Chlorides 50-60 percent grades	Other ^{2/}				
												22 percent and under	Grades over 22 percent						Grades 22 percent and under	Grades over 22 percent
East North Central	Alaska	0	1,036	39	78	227	50	122	147	5	708	4	2,635	2	228	44	14	5,338	14	
	Alabama	0	590	11	2	79	1	76	23	2	653	2	2,590	2	72	87	31	4,119	3	
	Alaska	0	457	12	3	12	0	62	153	2	145	98	16,827	5	31	264	12	18,119	24	
	Arizona	0	1,012	34	146	273	0	741	130	46	8,811	202	3,053	0	635	496	97	15,676	9	
	Arkansas	0	103	4	0	267	0	56	14	5	929	6	278	0	54	59	2	1,777	80	
	California	3	718	36	22	346	4	694	108	22	12,089	54	6,087	73	1,435	761	861	23,313	16	
	Colorado	3	3,916	171	251	1,751	55	319	575	82	33,335	366	31,400	80	2,455	1,711	1,017	60,372	315	
	Connecticut	241	11,653	611	312	3,498	676	4,043	778	235	18,347	396	36,396	400	1,070	758	740	60,677	731	
	District of Columbia	267	1,897	457	75	1,594	1,490	2,106	546	252	7,791	4	4,102	18	1,958	578	172	22,942	138	
	Florida	571	5,338	958	2,143	1,733	1,446	1,592	896	265	9,375	4	3,494	240	1,994	807	496	64,906	2,418	
East South Central	Georgia	194	1,183	29	1	614	587	155	82	0	541	170	494	140	72	436	0	4,658	68	
	Idaho	0	0	0	0	0	22	20	40	0	651	0	0	0	57	0	0	766	310	
	Illinois	406	1,191	593	67	1,430	918	1,482	449	12	1,607	1,643	3,580	7	1,476	410	1,176	15,435	310	
	Indiana	0	855	294	294	10	21	1,686	78	0	378	132	5,794	290	91	80	0	9,906	8	
	Iowa	1,679	22,124	2,935	2,892	8,871	4,138	11,084	2,849	764	38,690	8,063	82,767	1,095	3,776	3,059	2,984	129,380	3,733	
	Kansas	839	5,142	22,936	1,238	1,966	4,073	11,028	383	1	951	1,333	7,014	166	1,998	2,870	16,493	88,821	16,480	
	Kentucky	6,454	12,658	106,208	218	6,837	12,902	109,698	1,362	0	3,914	3,442	14,577	67	5,181	10,177	10,533	304,868	45,438	
	Louisiana	826	18,953	82,272	1,406	1,806	5,711	87,514	495	0	680	976	13,017	0	6,912	17,841	9,075	3,479	3,479	
	Maine	7,592	46,300	47,088	2,431	1,978	1,944	79,734	269	141	2,124	287	39,059	186	7,471	6,822	2,849	23,677	23,677	
	Maryland	1,087	13,327	5,944	2,534	1,652	2,728	22,586	2,812	11,556	11,003	22,425	8,731	211	5,727	2,519	17,744	382,376	96,514	
West North Central	Michigan	16,788	96,420	264,448	6,841	13,639	27,359	320,600	5,321	11,698	18,672	28,463	82,418	630	26,879	40,229	56,694	1,017,399	96,514	
	Minnesota	2,241	12,699	380	8,713	1,110	2,418	832	1,676	32	7,151	6,091	12,613	2,382	2,167	3,249	857	64,689	185	
	Mississippi	11,002	35,665	158	3,660	924	6,306	232	6,591	20	1,057	15,677	4,899	2,580	2,528	39,294	510	142,752	288	
	Missouri	18,570	45,989	1,260	27,211	994	8,672	113	5,250	21	12,040	570,294	40,369	27,114	10,379	76,301	60	844,775	746	
	Montana	1,767	9,737	87	5,181	181	1,164	346	2,153	66	12,640	1,998	8,445	1,009	906	1,501	693	48,274	993	
	Nebraska	3,346	5,836	0	239	22	1,071	0	0	2	6,078	4,860	1,297	822	717	6,470	626	32,320	91	
	Nevada	36,226	109,266	1,885	45,022	3,231	19,631	1,123	15,924	141	40,966	598,910	69,848	42,701	42,701	16,715	2,746	1,132,750	2,245	
	New Hampshire	13,694	6,811	0	449	85	5,506	0	566	35	4,084	1,062	4,378	25,834	20,507	10,238	211	76,631	2,154	
	New Jersey	10,283	27,922	0	444	45	6,259	0	1,946	3	4,167	9,141	33,159	20,507	20,061	9,075	99	343,351	112	
	New Mexico	15,538	57,181	0	948	40	4,369	18	746	5	3,761	236,112	3,422	6,357	7,470	19,297	363	355,627	14	
West South Central	North Dakota	102	947	0	20	0	64	0	42	0	64	40	0	17,598	26,380	22	0	45,309	1	
	Ohio	1,618	2,495	0	7	0	319	0	394	0	306	130	571	4,912	6,436	31	0	17,179	0	
	Oklahoma	36,153	30,013	173	312	0	11,789	4	2,667	0	772	286	17,994	9,281	264	0	112,416	64	64	
	Oregon	8,240	38,426	0	617	1	636	0	356	2	853	1,511	5,459	34,376	37,426	31,426	1,730	129,637	31	
	Pennsylvania	85,869	163,755	173	2,797	171	28,942	42	6,677	45	14,007	248,282	49,311	127,578	117,532	34,317	673	880,150	2,378	
	Rhode Island	1,641	29,387	111	485	1,409	474	1,467	162	7	530	15,391	24,156	2,516	9,328	9,303	6,395	108,762	119	
	South Carolina	12,031	35,762	480	898	1,080	0	16,254	33	4	1,359	17,355	10,325	4,567	7,758	11,563	1,253	105,702	229	
	Tennessee	2,397	79,130	35,178	2,074	737	734	85,655	179	3	523	3,249	21,415	373	50,022	9,473	291,711	1,340	1,340	
	Texas	45,069	139,402	7,163	1,179	0	588	22,822	868	0	64	4,586	32,760	2,315	94,700	0	417,794	12	12	
	Utah	63,677	283,681	13,492	5,205	1,860	1,726	156,198	1,242	14	2,476	24,361	88,956	10,171	161,578	53,239	8,542	917,989	1,700	
Mountain	Vermont	23,038	63,607	38	4,123	10,743	727	23,839	6,482	1	56	671	7,977	9,445	4,213	32,603	394	188,087	2,378	
	Washington	25,510	35,921	529	9,304	2,013	2,819	24,110	1,263	218	231	6,295	16,027	6,683	5,221	6,683	137,906	55	55	
	West Virginia	41,589	22,288	0	43,095	2,796	6,526	1,865	5,286	405	1,334	3,529	29,100	27,995	62,108	971	276,213	2,488	2,488	
	Wyoming	91,759	127,509	627	57,493	15,351	10,072	50,168	13,239	656	9,127	16,799	99,558	47,183	81,680	40,596	1,269	663,167	2,555	
	Alaska	1,088	2,210	0	2,699	0	102	0	221	0	156	0	90	16,079	4,636	62	0	28,042	1,189	
	Arizona	4,192	6,249	0	3,621	139	3,516	30	485	56	209	0	25	5,868	7,949	129	0	52,833	6,204	
	California	2,614	10,390	197	3,691	0	34	0	382	0	1	0	793	5,285	1,481	0	0	8,479	661	
	Colorado	14,427	8,063	819	23,174	0	785	0	1,354	0	1,426	0	0	13,826	5,481	430	294	41,383	186	
	Connecticut	1,921	6,118	0	5,781	0	10,993	704	10,604	40	1,117	0	5,611	9,048	0	0	0	27,159	0	
	District of Columbia	2,001	0	0	43,574	0	2,912	0	302	0	0	0	1,434	0	0	30	0	125,958	10,963	
Pacific	Idaho	14	48	0	632	0	116	0	27	0	231	0	40	0	373	30	0	26,821	237	
	Illinois	28,976	36,514	197	46,992	970	15,568	734	15,321	9,682	13,087	416	16,679	68,644	52,127	924	1,348	211,723	20,137	
	Indiana	19,013	22,619	0	12,913	243	28,753	97	1,372	2,191	4,654	0	5,868	7,965	14,132	2,485	289	121,470	12,445	
	Iowa	2,355	2,462	0	38,686	937	12,467	185	2,631	3,948	761	37	10,573	84	26,311	2,730	193	127,532	18	
	Kansas	68,412	52,172	0	140,234	6,248	216,857	185	18,704	35,911	306,892	1,750	64,215	27,977	101,486	5,295	1,038,413	688,696	688,696	
	Kentucky	92,778	36,180	0	191,973	7,318	298,077	282	22,070	41,550	312,297	0	80,656	25,377	7,111	5,177	1,287,415	637,072	637,072	
	Louisiana	416,453	940,625	31,328	359,427	65,818	365,637	942,562	83,835	64,602	472,657	988,026	601,693	324,059	610,671	307,101	80,650	6,478,344	786,649	
	Maine	2,001	0	0	11,397	0	50,294	233	8,236	66	49	2,888	3,889	1,599	2,762	14,604	1,675	97,743	2,996	
	Montana	0	0	0	43,574	0	2,912	0	302	0	0	0								

Table 5. - Kinds of fertilizers consumed in regions of the United States, year ended June 30, 1956, in tons^{1/}

Kind	New England	Middle Atlantic	South Atlantic	East North Central	West North Central	East South Central	West South Central	Mountain	Pacific	Territories ^{2/}	Total
MIXTURES: N-P-K	322,845	1,639,449	4,434,561	3,120,385	960,485	1,823,795	635,688	23,462	248,214	208,360	13,417,244
N-P	81	281	2,323	24,494	135,278	1,761	40,769	24,094	55,039	5,217	289,337
P-K	24,644	99,982	216,067	234,961	86,006	153,070	25,828	272	2,402	3,187	846,419
N-K	0	172	186,544	9	28	2,075	804	48	3,243	29,730	222,653
CHEMICAL NITROGEN MATERIALS											
Ammonia, anhydrous	3	1,679	16,788	36,926	85,868	61,677	91,758	28,976	92,778	2,001	3/ 418,454
Ammonia, aqua: 20-26% N	0	21	200	2,870	1,140	0	2,819	9,865	239,827	53,206	4/ 309,948
Ammonium nitrate	3,916	22,124	96,420	109,926	163,755	283,681	127,509	36,514	96,780	41	940,666
Ammonium nitrate-limestone mixtures	171	2,935	264,448	1,885	173	43,492	627	197	0	0	313,928
Ammonium sulfate	251	2,892	6,841	45,022	2,797	5,206	57,493	46,952	191,973	54,971	414,398
Calcium cyanamide	1,204	8,871	13,639	3,231	171	14,860	15,554	970	7,318	0	65,818
Calcium nitrate	0	5	10,492	0	0	0	396	9,637	34,989	66	55,585
Nitrogen solutions: 20-41% N	55	4,117	27,158	16,761	27,802	1,796	7,253	5,703	18,250	0	2/ 108,895
Sodium nitrate	1,751	11,084	320,900	1,423	22	156,198	50,168	734	282	242	542,804
Urea	575	2,849	5,321	15,904	6,677	1,242	13,239	15,321	22,707	8,538	92,373
Other	82	759	1,206	141	45	14	230	45	6,561	0	6/ 9,083
NATURAL ORGANIC MATERIALS											
Blood, dried	20	173	44	0	0	1	0	19	2,547	0	2,804
Castor pomace	2,456	95	1,688	0	0	0	0	0	937	0	5,176
Compost ^{1/}	0	136	3	4,979	585	95	2,579	200	0	0	8,577
Cottonseed meal ^{1/}	7,143	44	2,207	0	0	16	0	0	1	0	9,411
Fish scrap, meal, emulsions	505	0	26	0	0	0	0	0	1,685	0	2,216
Manures, dried	4,379	16,972	2,774	6,107	2,206	1,067	3,122	1,480	247,559	9	285,675
Sewage sludge, activated	5,472	12,865	7,160	29,027	11,108	1,277	3,426	10,689	20,102	40	101,166
Sewage sludge, other	0	0	0	556	103	0	0	209	34,983	0	35,851
Tankage, animal	0	223	196	0	0	0	0	0	1,326	0	1,745
Tankage, process	2,774	8,182	3,598	297	5	4	490	300	0	0	15,650
Other	586	0	976	0	0	16	0	0	2,857	0	8/ 4,435
PHOSPHATE MATERIALS											
Ammonium phosphate: 11-48 ^{2/}	0	7	0	3,747	20,974	0	2,241	3,351	14,399	2,409	47,128
" " 11-50 ^{2/}	0	0	0	0	1,113	0	50	483	0	0	1,646
" " 13-39 ^{2/}	0	0	0	494	16,567	0	13,649	5,006	6,411	0	42,127
Ammonium phosphate sulfate: 16-20 ^{2/}	0	0	0	402	58,666	210	56,130	36,402	99,503	233	251,546
Ammonium phosphate nitrate: 27-14 ^{2/}	0	0	0	0	606	0	0	(10 ^{3/})	5,246	0	5,852
Ammoniated superphosphate ^{1/}	0	0	264	0	0	0	44	0	5,672	1,219	7,199
Basic lime phosphate	0	0	693	0	0	5	0	0	0	0	698
Basic slag	0	48	21,974	0	0	146,543	3,300	0	0	0	20/ 171,865
Bonemeal, raw	32	359	289	336	178	22	396	40	1,016	0	2,660
Bonemeal, steamed	1,472	4,972	878	1,463	21	297	184	0	1,454	0	10,741
Calcium metaphosphate	0	299	2,398	9,058	15,426	13,207	2,550	188	0	0	43,126
Diammonium phosphate: 21-53 ^{2/}	150	91	203	1,215	3,946	1,294	2,428	4,127	280	120	13,854
Phosphoric acid: 36-54% P ₂ O ₅	0	0	0	0	35	0	708	6,530	7,948	0	12/ 15,221
Phosphate rock	366	8,023	27,863	595,671	24,504	16,510	15,297	0	1,787	2,888	913,909
Colloidal phosphate	0	40	600	3,239	2,758	8,451	1,501	0	416	0	17,005
Precipitated bone	801	0	0	0	0	0	0	0	0	0	801
Superphosphate: 18%	3,743	11,662	22,348	23,379	17,604	19,139	0	518	832	0	99,225
" " 19%	180	24	1,823	0	97	22	0	6,707	72,897	0	81,750
" " 20-22%	27,477	71,081	58,247	46,469	31,810	69,695	99,558	9,454	6,927	5,333	426,051
" " 23-41%	0	8	0	1,644	291	0	4,636	1,159	0	0	7,738
" " 42-44%	0	0	0	0	26,170	0	35	35,296	10,365	0	71,866
" " 45%	73	737	39	31,123	66,256	1,565	38,117	16,706	1,829	19	156,464
" " 46%	0	251	9	7,481	25,190	4,373	1,864	15,483	13,666	1,645	69,962
" " 47%	0	90	88	1,132	3,680	294	326	0	0	0	5,610
" " 48%	7	9	449	901	5,430	2,787	1,016	0	117	0	10,716
" " 49-50%	0	0	45	420	561	1,152	1,189	0	0	0	3,367
Other	0	0	180	0	0	0	0	0	0	0	13/ 180
POTASH MATERIALS											
Cotton hull ashes	632	2	311	0	0	0	0	0	0	0	945
Lime-potash mixtures ^{14/}	0	1,093	22,359	0	0	0	0	0	0	0	15/ 23,452
Manure salts: 20-30% K ₂ O	0	10	717	25	0	0	220	0	0	0	972
Potassium chloride: 48-52% K ₂ O	2	224	5,508	1,328	1,170	1,321	2,432	10	1,186	0	13,181
" " 58-62% K ₂ O	1,709	2,845	34,721	125,447	32,967	51,918	38,074	914	5,925	14,710	309,230
" " magnesium sulfate	116	598	2,109	1,620	466	1,469	101	0	208	1	6,688
" " sodium nitrate ^{11/}	90	1	19,700	8	0	32	849	0	0	0	20,680
" " sulfate	179	874	7,187	1,092	207	7,041	99	1,348	5,493	1,777	25,297
Other	0	6	4,311	1	0	0	0	0	76	0	16/ 4,394
PRIMARY NUTRIENT FERTILIZERS	415,942	1,939,264	5,856,893	4,512,599	2,061,947	2,898,690	1,366,256	359,599	1,596,313	395,962	21,403,465
SECONDARY & TRACE NUTRIENT MATERIALS											
Aluminum sulfate ^{1/}	8	10	2	0	0	0	0	0	86	0	106
Borax ^{1/}	63	248	746	164	42	384	22	0	388	0	2,057
Calcium sulfate (gypsum)	143	2,886	92,553	1,058	2,260	1,288	24	16,927	621,360	0	20/ 738,449
Copper sulfate ^{1/}	0	36	382	55	15	0	0	5	133	0	626
Ferrous sulfate ^{1/}	0	0	42	0	0	0	0	344	17/ 4,849	2,842	8,077
Magnesium sulfate ^{7/}	89	316	1,983	20	5	0	0	0	109	22	2,544
Manganese sulfate ^{1/}	0	143	259	901	2	0	30	1	52	0	1,388
Mixed minerals ^{1/}	2	0	4	8	0	5	3	302	3,650	0	3,974
Sulfur: 25-99% S	10	70	402	38	49	1	2,034	2,536	20,001	0	25,141
Sulfuric acid: 40-93%	0	0	0	0	0	0	434	18	4,456	0	4,908
Zinc sulfate ^{1/}	0	24	141	1	5	22	8	19/ 1,988	92	0	2,285
SECONDARY & TRACE NUTRIENT MATERIALS	315	3,733	96,514	2,245	2,378	1,700	2,555	20,137	657,072	2,956	789,605
ALL FERTILIZERS	416,257	1,942,997	5,953,407	4,514,844	2,064,325	2,900,390	1,368,811	379,736	2,253,385	398,918	22,193,070

^{1/} Includes distribution by Government agencies. Does not include the quantities of materials used for the manufacture of the indicated quantities of commercial mixtures. ^{2/} Hawaii and Puerto Rico. ^{3/} 343,578 tons N. ^{4/} 62,510 tons N. ^{5/} 34,493 tons N. ^{6/} 1,769 tons N. ^{7/} Distributed by manufacturers of fertilizers. ^{8/} Average: 4.07-2.14-0.66. ^{9/} Includes quantities reported as mixtures. ^{10/} All quantities totaling 1,775 tons was, by error, left in mixtures. Their State totals are listed in Table 3. ^{11/} Additional quantities may have been reported as mixtures. ^{12/} 7,515 tons P₂O₅. ^{13/} 29 tons available P₂O₅. ^{14/} Additional quantities are given free to farmers for which no records are kept. ^{15/} 1,418 tons K₂O. ^{16/} Average 0.55-1.21-6.78. ^{17/} Includes 1,239 tons of ferrous oxide. ^{18/} Includes 71 tons of manganese oxide. ^{19/} Includes 109 tons of zinc oxide. ^{20/} Revised total for year ended June 30, 1955; basic slag, 150,983 tons; calcium sulfate, 752,414 tons.

Table 6. - Consumption of primary plant nutrients, year ended June 30, 1956, in tons^{1/}

State & Region	Content of mixtures					Content of all fertilizers ^{2/}				
	Nitrogen	P ₂ O ₅		K ₂ O	Total N, avail. P ₂ O ₅ , and K ₂ O	Nitrogen	P ₂ O ₅		K ₂ O	Total N, avail. P ₂ O ₅ , and K ₂ O
		Available	Total				Available ^{3/}	Total ^{4/}		
Maine	13,625	20,472	21,591	22,110	56,207	14,209	21,114	22,257	22,152	57,475
New Hampshire	769	1,554	1,686	1,646	3,969	1,045	2,095	2,236	1,717	4,857
Vermont	1,270	5,124	5,279	5,488	11,882	1,523	8,698	8,975	5,654	15,875
Massachusetts	3,829	5,758	6,004	5,670	6,741	4,975	7,083	7,083	6,096	17,812
Rhode Island	737	1,348	1,384	1,376	3,461	892	1,440	1,480	1,422	3,754
Connecticut	3,288	4,989	5,262	5,453	13,730	4,542	7,202	7,592	6,393	18,137
New England	23,518	39,245	41,206	41,743	104,506	27,186	47,290	49,623	43,434	117,910
New York	30,730	57,833	61,659	48,487	137,050	38,096	66,122	70,562	49,521	153,739
New Jersey	13,370	25,537	26,351	25,157	64,064	15,888	27,083	28,111	25,686	68,657
Pennsylvania	30,482	70,299	73,017	67,367	168,148	35,554	78,044	82,343	68,088	181,686
Delaware	4,084	9,394	9,768	9,906	23,384	5,085	9,598	10,026	10,181	24,864
District of Columbia	125	167	180	94	386	182	208	223	97	487
Maryland	12,309	29,677	31,531	27,154	69,140	14,332	30,687	33,043	27,554	72,534
West Virginia	3,163	9,106	9,756	7,729	19,998	3,902	10,462	11,213	7,785	22,149
Middle Atlantic	94,263	202,013	212,262	185,894	482,170	113,039	222,204	235,521	188,873	524,116
Virginia	25,861	74,554	79,595	72,173	172,588	38,508	76,895	82,382	75,010	190,413
North Carolina	54,349	126,859	136,917	122,705	303,913	109,598	130,926	142,114	130,678	371,202
South Carolina	21,933	62,144	66,600	59,098	143,175	63,045	65,164	70,055	71,949	200,158
Georgia	42,262	102,972	110,353	103,412	248,646	88,446	111,776	119,635	108,281	308,503
Florida	68,793	81,693	99,528	100,844	251,330	86,186	85,122	109,576	104,528	275,836
South Atlantic	213,198	448,222	492,993	458,232	1,119,652	385,783	469,883	523,762	490,446	1,346,112
Ohio	47,064	134,393	142,491	132,410	313,867	57,672	139,456	149,512	134,705	331,833
Indiana	49,861	144,602	149,381	144,232	338,695	77,358	152,832	162,323	168,539	398,729
Illinois	30,448	75,555	78,979	77,308	183,311	72,784	119,292	289,201	123,934	316,010
Michigan	31,597	87,904	91,360	88,148	207,649	39,584	90,841	95,029	89,321	219,746
Wisconsin	15,127	61,350	63,774	62,027	148,504	20,811	62,874	66,735	76,174	159,859
East North Central	174,097	503,804	525,985	514,125	1,192,026	268,209	565,295	762,800	592,673	1,426,177
Minnesota	14,941	62,493	64,079	45,883	123,317	32,347	80,173	82,313	48,273	160,793
Iowa	20,228	56,968	59,527	39,304	116,500	43,917	81,143	87,055	44,838	169,898
Missouri	36,752	65,459	68,653	54,161	156,372	71,396	80,189	152,182	65,970	217,555
North Dakota	2,087	6,705	7,027	1,432	10,224	6,101	24,935	25,743	1,446	32,482
South Dakota	1,005	2,341	2,490	172	3,518	4,486	6,451	6,754	193	11,130
Nebraska	2,088	4,327	4,380	770	7,185	49,072	16,139	16,582	939	66,150
Kansas	7,866	16,757	17,304	4,248	28,871	33,688	43,478	44,980	5,302	82,468
West North Central	84,967	215,050	223,660	145,970	445,987	241,007	332,508	415,609	166,961	740,476
Kentucky	20,130	50,691	54,943	49,868	120,689	32,450	62,726	71,827	58,527	153,703
Tennessee	20,553	48,416	52,135	45,484	114,453	45,724	54,886	59,403	53,089	153,699
Alabama	31,678	86,644	92,876	67,926	186,248	82,748	96,036	103,930	73,664	252,448
Mississippi	19,054	32,175	34,629	27,202	78,341	116,497	48,578	53,723	41,162	206,237
East South Central	91,415	217,926	234,583	190,480	499,821	277,419	262,226	288,883	226,442	766,087
Arkansas	10,849	22,569	23,850	22,622	56,040	61,555	30,548	32,234	42,397	134,500
Louisiana	10,603	21,309	22,525	16,722	48,634	51,784	26,908	30,045	20,319	99,011
Oklahoma	5,675	12,576	13,146	5,163	23,414	10,764	24,420	26,354	5,722	40,906
Texas	22,066	42,702	44,718	21,219	85,987	87,711	82,207	86,994	21,937	191,855
West South Central	49,193	99,156	104,239	65,726	214,075	211,814	164,083	175,627	90,375	466,272
Montana	373	789	831	36	1,198	3,523	9,304	9,446	74	12,901
Idaho	756	867	1,010	143	1,766	11,081	10,602	11,002	223	21,906
Wyoming	201	424	447	34	659	947	3,414	3,486	50	4,411
Colorado	1,339	2,303	2,430	737	4,379	9,375	11,329	11,589	1,166	21,870
New Mexico	268	331	348	47	646	6,063	6,419	6,611	93	12,575
Arizona	2,437	2,933	3,057	545	5,915	35,997	13,677	14,037	1,266	50,940
Utah	469	577	644	166	1,212	6,017	4,901	5,127	186	11,104
Nevada	82	117	125	44	243	404	425	444	46	875
Mountain	5,925	8,341	8,892	1,752	16,018	73,407	60,071	61,742	3,104	136,582
Washington	2,825	5,264	5,455	3,961	12,050	37,998	13,612	14,055	5,640	57,250
Oregon	2,286	4,133	4,402	2,559	8,978	31,131	12,811	13,309	4,345	48,287
California	25,918	25,894	26,732	15,247	67,059	208,378	77,909	80,676	23,345	309,632
Pacific	31,029	35,291	36,589	21,767	88,087	277,507	104,332	108,040	33,330	415,169
Continental U. S.	767,605	1,769,048	1,880,409	1,625,689	4,162,342	1,875,371	2,227,892	2,621,607	1,835,638	5,938,901
Hawaii	7,752	5,222	5,222	11,016	23,990	24,356	8,206	9,128	20,717	53,279
Puerto Rico	21,316	10,803	12,159	18,247	50,366	32,876	11,322	12,683	18,363	62,561
Alaska ^{5/}	---	---	---	---	---	---	---	---	---	---
Territories	29,068	16,025	17,381	29,263	74,356	57,232	19,528	21,811	39,080	115,840
Total: 1955-56	796,673	1,785,073	1,897,790	1,654,952	4,236,698	1,932,603	2,247,420	2,643,418	1,874,718	6,054,741
1954-55	803,541	1,821,087	1,943,822	1,657,864	4,282,492	1,960,536	2,283,660	2,596,719	1,874,943	6,119,139
1953-54	778,099	1,793,871	1,922,708	1,603,584	4,175,554	1,847,416	2,234,548	2,639,419	1,813,594	5,895,558

1/ Includes Government distribution. 2/ Total in mixtures and direct application materials. 3/ Including 2 percent of the colloidal phosphate and 3 percent of the phosphate rock marketed for direct application. 4/ Including 22 percent of the colloidal phosphate and 32 percent of the phosphate rock marketed for direct application. 5/ Data not available - estimated total plant nutrients in all fertilizers amounted to 700 tons. 6/ Revised by deletion of 702 tons of available P₂O₅ from the Pennsylvania total. 7/ Revised by deletion of 830 tons of total P₂O₅ from the Pennsylvania total.

Table 7. - Weighted average primary plant nutrient content of fertilizers,
in percent, year ended June 30, 1956^{1/}

State and Region	Mixtures ^{2/}				Materials					Average nutrient content of mixtures and materials
	N	Available P ₂ O ₅	K ₂ O	Average nutrient content	Single nutrient ^{3/}			Multiple nutrients ^{2/}	Average nutrient content	
					N	Available P ₂ O ₅ ^{4/}	K ₂ O			
Maine	7.65	11.50	12.42	31.57	29.80	20.26	55.77	20.14	23.75	31.35
New Hampshire	6.32	12.76	13.52	32.60	27.59	20.02	55.08	11.28	21.40	29.75
Vermont	3.90	15.74	16.86	36.50	32.80	21.04	59.42	11.46	22.04	31.33
Massachusetts	6.54	9.84	9.69	26.07	18.27	19.11	58.80	10.95	16.30	24.01
Rhode Island	5.62	10.27	10.49	26.38	19.40	19.37	59.02	9.95	16.49	25.20
Connecticut	6.18	9.38	10.25	25.81	22.97	23.79	56.92	12.69	18.90	23.71
New England	6.77	11.29	12.01	30.07	23.03	21.28	57.68	12.26	19.60	28.35
New York	6.24	11.74	9.84	27.82	25.76	20.22	54.11	9.71	20.69	26.82
New Jersey	5.59	10.68	10.52	26.79	24.45	18.04	52.80	13.13	20.02	26.19
Pennsylvania	5.21	12.01	11.51	28.73	28.76	18.87	47.92	11.95	20.86	27.94
Delaware	5.06	11.65	12.28	28.99	33.41	23.03	60.78	9.37	31.77	29.14
District of Columbia	7.04	9.41	5.30	21.75	19.66	20.39	0	11.99	13.18	19.16
Maryland	4.63	11.17	10.22	26.02	28.32	16.61	21.58	12.37	21.99	25.80
West Virginia	4.22	12.16	10.32	26.70	22.38	21.30	61.25	10.78	21.52	26.09
Middle Atlantic	5.42	11.61	10.68	27.71	26.76	19.45	43.99	11.25	21.04	27.03
Virginia	3.84	11.08	10.73	25.65	21.47	22.60	14.59	19.58	20.07	25.01
North Carolina	4.02	9.39	9.08	22.49	21.42	16.14	39.03	14.74	22.07	22.42
South Carolina	3.56	10.10	9.61	23.27	20.35	15.07	56.62	28.32	23.27	23.27
Georgia	4.23	10.31	10.35	24.89	24.44	18.56	57.09	18.72	24.31	24.77
Florida	5.73	6.80	8.39	20.92	22.60	8.07	50.71	17.61	18.49	20.68
South Atlantic	4.40	9.26	9.47	23.13	21.99	15.11	40.30	19.10	22.26	22.98
Ohio	4.78	13.64	13.44	31.86	33.61	20.15	54.75	13.26	27.80	31.60
Indiana	5.41	15.70	15.66	36.77	41.96	21.27	61.09	29.97	42.05	37.48
Illinois	5.91	14.67	15.01	35.59	38.35	6.53	60.93	17.42	15.71	23.24
Michigan	5.46	15.19	15.23	35.88	35.28	18.99	50.41	10.38	25.06	35.05
Wisconsin	3.98	16.15	18.96	39.09	49.39	14.56	58.04	11.81	35.13	38.78
East North Central	5.15	14.91	15.21	35.27	38.97	7.92	60.45	15.46	20.67	31.60
Minnesota	5.16	21.60	15.86	42.62	59.62	43.11	59.74	37.26	48.90	43.94
Iowa	6.61	18.63	12.85	38.09	45.35	29.27	59.97	35.17	37.25	37.82
Missouri	8.08	14.39	11.91	34.38	43.27	5.48	59.81	24.84	17.20	26.85
North Dakota	8.75	28.10	6.00	42.85	38.55	45.75	60.46	51.95	49.12	46.96
South Dakota	10.67	24.85	1.82	37.34	51.49	39.77	60.37	42.95	44.31	41.84
Nebraska	10.18	21.10	3.75	35.03	56.10	42.23	61.74	44.15	52.45	49.76
Kansas	10.08	21.46	5.44	36.98	41.88	40.17	60.46	41.09	41.34	39.70
West North Central	7.19	18.20	12.35	37.74	48.64	19.26	59.90	41.73	33.46	35.91
Kentucky	4.66	11.73	11.54	27.93	34.70	23.10	55.12	38.83	32.13	28.73
Tennessee	5.01	11.80	11.09	27.90	37.64	25.41	59.26	20.06	37.13	29.79
Alabama	3.93	10.75	8.43	23.11	24.66	12.25	60.35	34.88	22.69	23.00
Mississippi	5.73	9.68	8.18	23.59	37.47	12.16	58.79	45.73	30.59	27.49
East South Central	4.62	11.00	9.62	25.24	32.66	15.30	58.19	31.07	29.00	26.43
Arkansas	6.19	12.88	12.91	31.98	38.04	36.54	60.08	36.62	41.71	37.02
Louisiana	6.48	13.03	10.23	29.74	40.00	17.57	57.98	32.65	36.01	32.63
Oklahoma	7.42	16.43	6.75	30.60	40.61	23.23	59.78	40.91	29.67	30.19
Texas	7.67	14.84	7.37	29.88	45.13	28.07	57.91	38.07	38.33	34.02
West South Central	7.00	14.10	9.35	30.45	41.04	26.25	59.71	38.17	38.03	34.13
Montana	9.98	21.14	.96	32.08	36.58	43.31	60.40	43.76	41.73	40.60
Idaho	14.05	16.11	2.66	32.82	35.70	40.47	60.89	39.74	38.12	37.63
Wyoming	10.93	23.06	1.85	35.84	32.77	46.03	60.40	51.86	44.25	42.75
Colorado	11.12	19.13	6.12	36.37	38.81	45.20	57.18	44.05	42.33	40.98
New Mexico	14.64	18.08	2.57	35.29	61.10	35.34	60.40	38.89	43.92	43.38
Arizona	13.95	16.78	3.12	33.85	37.06	35.13	54.45	32.76	35.87	35.62
Utah	10.36	12.75	3.67	26.78	34.43	40.90	60.40	44.83	37.73	36.11
Nevada	7.83	11.18	4.20	23.21	23.93	40.06	0	30.80	29.56	27.47
Mountain	12.38	17.42	3.66	33.46	37.94	40.82	56.16	36.69	38.68	37.98
Washington	7.86	14.64	11.02	33.52	37.90	34.29	58.61	32.90	37.21	36.37
Oregon	8.64	15.62	9.67	33.93	28.71	21.71	60.69	38.17	30.82	31.36
California	10.51	10.50	6.18	27.19	30.20	26.62	54.90	12.75	23.36	24.10
Pacific	10.04	11.42	7.05	28.51	30.95	27.09	57.01	15.11	25.41	26.01
Continental U. S.	5.28	12.18	11.19	28.65	32.69	16.53	55.47	22.60	27.42	28.27
Hawaii	11.86	7.99	16.85	36.70	23.15	20.28	59.59	57.69	29.96	32.66
Puerto Rico	11.77	5.96	10.08	27.81	23.54	21.61	55.50	22.00	23.58	26.87
Alaska ^{5/}	---	---	---	---	---	---	---	---	---	---
Territories	11.79	6.50	11.87	30.16	23.31	20.48	59.54	46.90	27.75	29.25
U. S. Average:										
1955-56	5.39	12.08	11.20	28.67	32.35	6/ 16.55	55.64	22.71	6/ 27.43	28.29
1954-55	5.24	11.86	10.80	27.90	31.00	19.37	54.56	21.64	27.88	27.90
1953-54	5.01	11.54	10.32	26.87	30.81	15.70	54.01	17.53	25.99	26.61

^{1/} Excluding materials not guaranteed to contain one or more of the primary plant nutrients, N, P₂O₅, or K₂O. ^{2/} Guaranteed to contain two or more of the primary plant nutrients. ^{3/} Guaranteed to contain one of the primary plant nutrients.

^{4/} Including 2 percent of the colloidal phosphate and 3 percent of the phosphate rock marketed for direct application. ^{5/} Not available. ^{6/} Revised: See table 6, footnote 6 for basis of revisions.

